

VAN CHUAN'-PEN [Wang Ch'uan-p'eng]; MEKHEDOV, V.N.; RYBAKOV, V.N.;  
SHIMCHAK, R.A.

Search for secondary reactions of deuterium and tritium  
capture. Zhur. ekspl. i teor. fiz. 44 no.6:1800-1805 Je '63.  
(MIRA 16:6)

1. Ob'yedinennyi institut yadernykh issledovaniy.  
(Nuclear reactions) (Deuterium)  
(Tritium)

PANFILOV, Mikhail Ivanovich; RYBAKOV, V.P., redaktor; KOVALENKO, N.I.,  
tekhnicheskiy redaktor

[Interfactory schools in open-hearth shops; from the experience of  
the Ural iron industry] Mezhzavodskie shkoly v martenovskikh tse-  
khakh; iz opyta metallurgicheskikh zavodov Urала. Sverdlovsk, Gos.  
nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii,  
Sverdlovskoe otdelenie, 1955. 68 p. (MLRA 8:6)

(Ural mountain region--Technical education)  
(Open-hearth process)

RYBAKOV, V.S.

Automatic control of lighting systems. Tekst. prom. 17 no.8:51-52  
(MIRA 10:9)  
Ag '57.

1. Glavnnyy mekhanik Marvskoy l'no-dzhutovoy fabriki.  
(Textile factories--Lighting)  
(Automatic control)

KONONOV, V.P. (Leningrad); KUTSKO, M.Ye. (Leningrad); LEVIN, V.N.  
(Leningrad); RYBAKOV, V.S. (Leningrad)

Compensation of rotor oscillations of a synchronous motor fed  
from a rectifier converter. Izv. AN SSSR. Energ. i transp. no.2:  
123-128 Mr-Ap '65. (MIRA 18:6)

RYABOKON<sup>1</sup>, N.G., kand.tekhn.nauk; GAL'CHINSKIY, L.V., inzh.; RYBAKOV, V.V., inzh.

Equipment for the automatic condenser-discharge welding of electric  
lamp spiral leads to the base. Svar. proizv. no.6:23-25 Je '61.  
(MIRA 14:6)

1. L'vovskiy politekhnicheskiy institut.  
(Electric welding—Equipment and supplies)  
(Electric lamps, Incandescent—Filaments)

RYBAKOV, V.V.

Thermodynamic properties of argon at high temperatures. Izv. vys. ucheb. zav.; neft' i gaz. 6 no. 537-30 '63 (MIRA 17:7)

1. Moskovskiy aviatcionnyy institut imeni S. Ordzhonikidze.

44996

S/135/63/000/002/008/015  
A006/A101

/ 2300

AUTHORS: Gubenko, T. P., Doctor of Technical Sciences, Batranin, Yu. Ye.,  
Kirpatovskiy, S. I., Lukin, V. I., Candidates of Technical Sciences,  
Rybakov, V. V., Fal'kevich, V. P., Engineers

TITLE: Automatic quality control of spot welding by infrared radiation

PERIODICAL: Svarochnoye proizvodstvo, no. 2, 1963, 25 - 27

TEXT: In 1960 - 1961, the authors have been studying at the L'vov Polytechnic Institute the correlation between infrared radiation and the welding process and the quality of the weld joints produced. The results obtained were used to develop an automatic device for quality control of spot welding during the welding process by the intensity of the infrared radiation flux which is irradiated from the annular electrode-adjacent zone of the part to be welded. When the given infrared radiation level, corresponding to a given diameter of a spot, has been attained, the welding current is switched-off. The machine consists of the measuring head and the measuring unit, which are described and illustrated. The device was tested on spot-welding machine WP 62 d/60 with up to 500 kg elec-

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Automatic quality control of...

S/135/63/000/002/008/015  
A006/A101

trode compression force. The welding current attained 18 kamp. Special experimental welding tests were performed; optimum conditions were not observed, i.e. the current and the electrode compression force were lowered or increased, and the methods of preparing the specimens varied. The main properties of the new machine were revealed by investigating the dependence of the weld joint strength and the dimensions of the cast nucleus upon the parameters of the welding conditions and the preparation of the specimens. It was found that the scattering of results in the breaking force per welded spot was only  $\pm 6\%$  at varying compression force of the electrodes. Analogous results were obtained when the welding current was changed. The strength of the weld joint was 2,600 kg on the average for 2.5 mm thick plates and varied within  $\pm 8\%$ . The tests show that high stability of welding one spot is assured, independent of the changes in welding conditions, parameters and preparation of specimens. There are 5 figures

ASSOCIATION: L'vovskiy politekhnicheskiy institut (L'vov Polytechnic Institute)  
(Rybakov)

Card 2/2

GUBENKO, T.P., doktor tekhn.nauk; BATRANIN, Yu.Ye., kand.tekhn.nauk; KIRPATOVSKIY,  
S.I., kand.tekhn.nauk; LUKIN, V.I., kand.tekhn.nauk; RYBAKOV, V.V., inzh.;  
FAL'KEVICH,V..P., inzh.

Automatic quality control of spot welding by infrared radiation.  
Svar. proizv. no.2:25-27 F '63. (MIRA 16:2)

1. L'vovskiy politekhnicheskiy institut (for Rybakov).  
(Electric welding—Quality control)  
(Infrared rays—Industrial applications)

L 12495-63

Pu-4 JW/JD

EPF(c)/EPF(n)-2/EWP(q)/BDS/EWT(m)/EWT(l) AFFTC/ASD/SSD/

ACCESSION NR: AP3002832

S/0152/63/000/005/0077/0080

AUTHOR: Rybakov, V. V.TITLE: Thermodynamic properties of argon at high temperatures

SOURCE: IVUZ. Neft' i gaz, no. 5, 1963, 77-80

TOPIC TAGS: argon, ionization equilibrium constant, ionized argon, specific enthalpy

ABSTRACT: The thermodynamic properties of argon at high temperature were studied. Modern statistical and thermodynamic methods were used in these calculations. These calculations and formulas are given in a stepwise procedure and include the following factors; (i) determination of the summation of the internal state which is necessary for the calculation of the ionization equilibrium constant and the thermodynamic functions of the ionization of the gas and its mixtures; (ii) determination of the composition of the ionized argon; (iii) determination of the apparent molecular weight of the mixture of the thermally-ionized argon; (iv) determination of the specific enthalpy of the component; (v) determination of the specific enthalpy of the thermally-ionized mixture; (vi) of the specific weight enthalpy; (vii) the specific entropy. Orig. art. has: 12 formulas and 3 tables.

Card 1/2 Association: Moscow Aeronautical Inst.

64  
63

36845  
S/137/62/000/004/173/201  
A154/A101

1.2300

AUTHOR: Rybakov, V.V.

TITLE: Electrostatic percussive T-welding of brass

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 40, abstract 4E214  
("Dokl. L'vovsk. politekh. in-ta", 1961, 5, no. 1. Mekhanika, 209 -  
214)

TEXT: The test unit for electrostatic percussive T-welding consists of a power supply unit and a welder. The unit was used to weld pins of AC-59-1 (IS-59-1) brass to a plate of AC-62-1 (LO-62-1) brass. The following welding parameters were constant: capacitance of capacitors (3,000  $\mu$ f); charging voltage (780 v); transformation ratio of welding transformer (170). Adjustable parameters were: force of squeezing of parts and positioning length (projection of rod from the bottom electrode). Optimum squeezing force at a positioning length of 2.5 mm was 130 kg, whereby the specific pressure was 18.5 kg/mm<sup>2</sup>. Optimum positioning length is 0.3 - 0.5 d. Current flow time was 0.008 sec, current peak ~14,000 amp. Optimum welding regime is continuously accompanied by splashing.

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Electrostatic percussive T-welding of brass

S/137/62/000/004/173/201

A154/A101

The weld withstands both a technological bending test and a tearing test.

V. Klyuchnikova

[Abstracter's note: Complete translation]

Card 2/2

RYBAKOV, V.V. (Moskva)

Thermodynamic properties of water vapor at high temperatures.  
Teplofiz. vys. temp. 1 no.1:64-72 J1-Ag '63. (MIRA 16:10)

RYBAKOV, Viktor Vasil'yevich; NIKIFOROVA, R.A., inzh., red.; GORNOSTAY-  
POL'SKAYA, M.S., tekhn. red.

[Manual of gas welding] Uchebnik gazosvarshchika. Izd. 2., perer.  
i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,  
1961. 188 p. (Gas welding and cutting)

42948

S/081/62/000/022/034/088  
B158/B101

18.1285

AUTHORS: Rybakov, Ye. I., Fomicheva, N. A.

TITLE: The use of titanium and its alloys as corrosion-resistant materials in the production of titanium dioxide

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 303, abstract 22I166 (Lakokrasochnye materialy i ikh primeneniye, no. 2, 1962, 60 - 62)

TEXT: Tests have been carried out on titanium and its alloys in media specific for  $TiO_2$  production. The hydrolyzers were generally exposed to the action of titanium sulfate (from 200 g/l, related to  $TiO_2$ , in the initial solution to 10 g/l in the end solution), active  $H_2SO_4$  (from 350 - 570 g/l in the initial to 200 - 400 g/l in the end solution) and iron sulfate (from 80 - 100 to 40 - 50 g/l, respectively). The reaction temperature was 40 - 100°C with free admission of atmospheric  $O_2$  to the interface surface. The test results showed that all the alloys investigated may be divided into 2 groups, stable and unstable under the given conditions.

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B158/B101

## The use of titanium and its alloys...

Alloys НМТ-1 (IMP-1) (100 % Ti), НМТ-7 (IMP-7) (95 % Ti + 3 % Al + 2 % V) and НМТ-9 (IMP-9) (94 % Ti + 4 % Al + 2 % V) belong to the corrosion-resistant group. The increase in weight in  $\text{g}/\text{m}^2 \cdot \text{hr}$  was 0.149 for the first material, 0.02 for the second and 0.111 for the third. Welded seams were not corroded and in tensile tests, no rupture occurred along the welded seam. The other alloys investigated belong to the unstable group and

become corroded at varying rates ( $\text{g}/\text{m}^2 \cdot \text{hr}$ ): НМТ-3 (IMP-3) (97 % Ti + 3 % W) 19.5; НМТ-4 (IMP-4) (95 % Ti + 1.5 % Al + 3 % Mn) 67; НМТ-6/2 (IMP-6/2) (89 % Ti + 3 % Al + 5 % Cr + 3 % Fe) 116; НМТ-5 (IMP-5) (97 % Ti + 3 % Al) 50; НМТ-8 (IMP-8) (95 % Ti + 2 % Al + 3 % Sn) 21; and АН-НМТ-300 (AN-IMP-300) (84.49 % Ti + 1.5 % Cr + 0.5 % Fe + 0.5 % Sn + 0.01 B) 53. Corrosion of the unstable materials is characterized by pitting and spreads into the depth of the specimen. Corrosion of the side surfaces is of a fibrous nature and spreads longitudinally into the depth of the specimen. It is characteristic that during the first 10 - 40 hrs corrosion occurs slowly and then accelerates sharply. It was found that titanium alloys IMP-1, IMP-7 and IMP-9 may be used for equipment used in  $\text{TiO}_2$  production.

[Abstracter's note: Complete translation.]

Card 2/2

CHUYKIN, Ye.I.; BOBROVA, A.M.; BOCHKAREV, V.M.; BALUKOVA, Ye.V.;  
RYBAKOV, Ye.I.; SARAPUL'TSEV, I.A.; SOKOLOVA, L.A.

Use of radioactive indicators in studying the movement regularities  
of technological solutions in the production of titanium dioxide.  
Lakokras.mat.i ikh prim. no.5:64-70 '62. (MIRA 16:1)  
(Radioactive tracers) (Titanium oxides)

41665

S/137/62/C00/010/015/028  
A052/A101

18.12.85

AUTHORS: Rybakov, Ye. I., Fomicheva, N. A.

TITLE: Application of titanium and its alloys as corrosion-resisting materials in titanium dioxide production

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 10, 1952, 87, abstract 101573 ("Lakokrasochn. materialy i ich primeneniye", no. 2, 1952, 50 - 62)

TEXT: Tests of Ti and its alloys were carried out in media specific for  $TiO_2$  production, where the concentration of  $H_2SO_4$  varies from 20 to 9 $\frac{1}{2}$ % and the temperature ranges from 10 to 220°C. To stable alloys belongs Ti and its alloys with 3% Al + 2% V and with 4% Al + 2% V. No traces of corrosion were detected on microsections of these alloys either on the grain boundaries or on the surface of the samples. The increase of the weight during the test results obviously from the formation of an oxide film, which has a good adhesion with the base metal and is insoluble in  $H_2SO_4$ ,  $HNO_3$  and  $HCl$ . Welded seams on Ti do not corrode. It is shown that  $\sigma_{cr}$  decreases slightly after corrosion tests but the

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S/137/62/000/010/015/023

A052/A101

Application of titanium and its...

rupture takes place not along the welded seam. Microstructure investigations have shown that corrosion of unstable alloys has a "pitting" character and penetrates sometimes into a sample up to 20 mm deep. The corrosion of side surfaces has a "fibrous" character. As a characteristic feature it should be pointed out that during the first 10 - 40 hours the corrosion takes a slow course, and thereafter its rate increases sharply.

N. Sladkova

[Abstracter's note: Complete translation]

Card 2/2

RYBAKOV, Ye.T.; PIKAZIN, Ya.S.

Improved method of hydrogen production for aerological purposes.  
Trudy GGO no.108:73-85 '60. (MIRA 13:11)  
(Hydrogen) (Balloon gases)

RYBAKOV, Ye.T.

Temperature measurements in the AVG-45 type gas generator.  
Trudy GGO no.106:69-74 '61. (MIRA 14:10)  
(Gas producers)

RYBAKOV, Yu., inzh.

Engineer; inventor; All-Union Society of Inventors and  
Innovators. Izobr. i rats. no.6:16-17 '63.  
(MIRA 16:8)

RYBAKOV, Yu.F.

Determination of volume requirements and bottom pressure of a gaseous agent in air and gas drilling. Izv. vys. ucheb. zav.; neft' i gaz 4 no.6:27-32 '61. (MIRA 15:1)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.  
(Oil well drilling)

RYBAKOV, Yu. F.

Determining the flying speed of irregularly shaped particles in  
the annular space of a well. Izv.vys.ucheb.zav.; neft' i gaz 6  
no. 12:17-21 '63. (MIRA 17:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti  
im. akademika I.M.Gubkina.

RYBAKOV, Yu.F.

Studying the performance of bits in gas and air drilling. Trudy MINKHIGP  
no.40:23-31 '63. (MIRA 16:4)  
(Oil well drilling)

SHATSOV, Nakhman Isaakovich; RYBAKOV, Yuriy Fedorovich; KAYESKOVA, S.M.,  
vedushchiy red.; TROFIMOV, A.V., tekhn. red.

[Air and gas drilling abroad] Burenie skvazhin s produvkoj vozdukham  
ili gazon za rubezhom. Moskva, Gos. nauchno-tekhn. izd-vo neft. i  
gorno-toplivnoi lit-ry, 1961. 120 p. (MIRA 14:6)  
(Boring)

REBEL'SKIY, A.V. [deceased]; PROTOPOPOV, O.V.; KUZNETSOV, A.V.;  
POLYAKOV, I.S.; RYBAKOV, Yu.I.

Drop forging in split dies. Kuz.-shtam.proizv. 4 no.12i3-8 D '62.  
(MIRA 16:1)

(Forging)

(Dies (Metalworking))

S/182/62/000/012/001/005  
D040/D112

AUTHORS: Rebcl'skiy, A.V. (Deceased), Protopopov, O.V., Kuznetsov, A.V.,  
Polyakov, I.S., and Rybakov, Yu.I.

TITLE: Press forging in sectional dies

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no.12, 1962, 3-8.

TEXT: ENIKMASH and the Moskovskiy avtomechanicheskiy institut (Moscow Automechanical Institute) jointly studied the sectional-die forging process by forging two types of automotive universal joints. The universal joint was chosen because it is a typical automobile part with long protrusions that can be economically fabricated by the sectional-die forging method. The article gives a detailed description of the two experimental dies sets, observations of metal flow in the die and the transition radii, gaps between the punch and the die container, and the forging outline giving proper filling of the die without burrs. Engineering recommendations are given. Studies have yet to be continued to find the necessary technological data for the forging of parts other than universal joints. The recommendations concern the outline of the forging, the use of one-stage and two-stage forging for different forgings, the types of special presses to be developed. Reference ✓

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S/182/62/000/012/001/005

D040/D112

Press forging in sectional dies.

is made to non-Soviet special presses for sectional-die forging, such as the U.S. Baldwin press, the German "Siempelkamp", or the British Wilkins & Mitchell. There are 8 figures and 1 table.

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RYBAKOV, Yu.P.

Instability of the steady state of a nonlinear spinor field.  
Vest. Mosk. un. Ser. 3: Fiz., astron. 20 no.6:62-67 N-D '65.  
(MIRA 19:1)

1. Kafedra teoreticheskoy fiziki Moskovskogo universiteta.  
Submitted July 8, 1964.

ACCESSION NR: AP3005670

S/0188/63/000/004/0027/0031

AUTHOR: Ry\*bakov, Yu. P.

TITLE: Criteria of stability of the solutions of the nonlinear equations of a scalar field

SOURCE: Moscow. Universitet. Vestnik. Seriya III, Fizika, astronomiya, no. 4, 1963,  
27-31TOPIC TAGS: scalar field, field theory, scalar field equation, scalar field stability,  
stability criterion, lagrangian, scalar field energyABSTRACT: The problem investigated in this paper was to derive a set of solutions for the  
Lagrangian of a nonlinear field, namely  $L = \frac{1}{2} \{ \psi\dot{\psi} - \nabla\psi\nabla\psi^* - m^2\psi\psi^* + m^2F(\psi\psi^*) \}$ .

which would meet the conditions of stability and the so-called "particle-likeness", i.e.,  
integrability over the entire space function and localization of the field in a small region of  
space so that the properties of the arrangement can be considered to approximate those of  
a particle. An attempt is made to achieve a solution via the introduction of a suitable  
arbitrary function  $F(\psi, \psi^*)$  into the Lagrangian, using A. M. Lyapunov's method, and em-  
ploying the functional  $\mathcal{V}$ , subject to the condition that  $\frac{d\mathcal{V}}{dt} \leq 0$ . By suitable expansions of

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ACCESSION NR: AP3005670

energy and charge integrals, the former may be divided into kinetic and potential energy components, and the following condition is obtained:  $V_{\text{potential}} = W(\varphi)$ , where  $\varphi$  is an amplitude function involving  $F$ , and  $W$  is the function to be minimized. Minimization after Taylor's series expansion shows that a necessary and sufficient condition for stability is attained when  $F''(u^2) < 0$ , ( $u$  being a solution obtained in an earlier paper, i.e.,  $\psi_0(n, t), u(n) \propto e^{-i\omega t}$ ). Jacoby's solutions are thus expanded by the addition of "working conditions" which enable one to grope one's way toward the selection of classes of functions the unconditional solution of which would be stable. "In conclusion, I would like to thank Prof. Ya. P. Terletskiy for this constant help and interest in this work. Orig. art. has: 1 figure and 10 formulas.

ASSOCIATION: Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo universiteta  
(Department of Statistical Physics and Mechanics, Moscow State University)

SUBMITTED: 27 Nov 62

DATE ACQ: 06 Sep 63

ENCL: 00

SUB CODE: MA

NO REF Sov: 004

OTHER: 000

Card 2/2

RYBAKOV, Yu.P.

Criteria of the stability of solutions to nonlinear scalar  
field equations. Vest. Mosk. un. Ser. 3: Fiz., astron. 18  
no.4:27-31 Jl-Ag '63. (MIRA 16:8)

I. Kafedra statisticheskii fiziki i mekhaniki Moskovskogo  
universiteta. (Field theory) (Differential equations)

RYBAKOV, Yu.P.

Stability of particle-like solutions to a nonlinear  
scalar field equation. Vest. Mosk.un.Ser.3:Fiz, astron.  
(MIRA 15:9)  
17 no.4:24-29 Jl-Ag '62.

1. Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo  
universiteta. (Differential equations)

RYBAKOV, Yu P.

Problem of the motion of a relativistic electron in a magnetic field moving with a phase velocity greater than the velocity of light. Vest. Mosk. un. Ser. 3. Fiz., astron. 17 no. 2:3-10 Mr-Ap '62. (MIRA 16:2)

1. Kafedra statisticheskoy fiziki i mekhaniki fizicheskogo fakul'teta Moskovskogo universiteta.  
(Electrons) (Magnetic fields) (Wave guides)

24-6731

37416  
S/188/62/000/002/001/013  
B125/B102

AUTHOR: Rybakov, Yu. P.

TITLE: Motion of a relativistic electron in a magnetic field shifting at a phase velocity greater than the speed of light

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 2, 1962, 3-10

TEXT: A fourth, practicable version of the induction linear accelerator ("linear betatron") suggested by M. V. Konyukov and Ya. P. Terletskiy (Nuovo Cimento, 9, no. 6, 1958) is discussed. The magnetic field in this version moves at a velocity greater than that of light. The following versions have already been investigated: (1) The field motion is such that the orbital radius of the electron remains constant. (2) The field moves uniformly at a velocity  $u < c$ . (3) The field moves at the velocity of light. Now the case of  $u > c$  is studied. The magnetic field is "periodically barrel-shaped" and symmetric relative to the z-axis; its lines of force are given by

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S/188/62/000/002/001/013  
B125/B102

Motion of a relativistic electron ...

$$\cos\left(\frac{\omega z}{u}\right) = \frac{\text{const} - \frac{H_1 r^2}{2}}{B r I_1\left(\frac{\omega a}{u} r\right)}.$$

where  $B = \text{const}$ , and  $\omega$  is the wave frequency. The arbitrary constant  $b$  is due to the gradient invariance. The respective Hamilton-Jakobi equation is solved by approximation using the method of the small parameter ( $\varepsilon = B^2 \omega a / H_1 u < 1$ ). Hence, the energy growth is given by

$$\Delta E = \frac{E_0}{1 - \frac{c^2}{u^2}} \left[ \sqrt{1 + \left(1 - \frac{c^2}{u^2}\right)\left(\frac{A^2}{A_0^2} - 1\right)} - 1 \right]. \quad (4).$$

For  $u \rightarrow c$  it follows that

$$\Delta E_c = \frac{1}{2} E_0 \left[ \frac{A^2}{A_0^2} - 1 \right].$$

The differential ratio (energy emission/energy absorption) is

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S/188/62/000/002/001/013  
B125/B102

Motion of a relativistic electron ...

$$k = \frac{2}{3} \cdot \frac{e^4}{m_0^4 c^7} E \left\langle A \frac{\partial A}{\partial t} \left( \frac{H}{H_r u} \right)^3 \right\rangle. \quad (6).$$

The electron motion can be steadied in the accelerating region. A disadvantage of the "linear betatron" discussed here is that the steady motion is incompatible with a large energy growth; for the electron motion is steady only if the alternating field is sufficiently weak as compared with the constant field. Professor Ya. P. Terletskiy and S. I. Gutsunayev are thanked for guidance. The solution of the Hamilton-Jakobi equation and the sign of the quadratic forms are considered in the mathematical appendix. The English-language reference is: Schwinger J. Phys. Rev., 75, 1912, 1949.

ASSOCIATION: Kafedra statisticheskoy fiziki i mekhaniki fizicheskogo fakul'teta (Department of Statistical Physics and Mechanics of the Physics Division)

SUBMITTED: April 10, 1961

Card 3/3

82290  
S/135/60/000/007/007/014  
A006/A002

18.12.00

AUTHOR: Rybakov, Yu.V.

TITLE: Telescopic Connections of 1X18H9T (1Kh18N9T) Steel Pipes Produced by Roller Welding.

PERIODICAL: Svarchnoye proizvodstvo, 1960, No. 7, pp. 21-24

TEXT: In Reference 1, the author proved the efficiency of a special current feed in welding telescopic joints of thin-walled pipes, establishing simultaneously considerable shunting of the current and other peculiarities of the process. In this connection he investigated the effect on the fusion depth of the pipe fit in the lap joint, the gap between mandrel and pipe, the shunting of current and other parameters, of the welding process. N.N. Dokin, V.V. Larin, V.I. Lisenkov, N.A. Maryakhina and V.V. Chumakov participated in the experimental investigation. The welding tests were performed on a device designed on the basis of the "MWP-150" (MShP-150) machine with pipes of 9.4 x 0.6; 9.6 x 0.7; 18 x 1; 22 x 1; 22 x 1.4 and 25 x 2 mm. The main criterion for the quality of the welds and the stability of the welding conditions was the average depth of fusion in 5 to 6 measurements at different spots of the seam. The following results were obtained: Tightening,

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S/135/60/000/007/007/014  
A006/A002

Telescopic Connections of 1 18 9 (1Kh18N9T) Steel Pipes Produced by Roller Welding

even at a magnitude of 110 mk and a pressure of  $106 \text{ kg/mm}^2$ , did not affect the dimensions of the cast core. An increase in the gap between the pipes to be welded deformed the pipe to an oval shape. Therefore, it is recommended to maintain a minimum gap between the pipes. The gap between the mandrel and the pipe should not exceed 0.2 mm. Shunting of current was observed in welding with tongs. There was no shunting in welding with a mandrel and a stable gap, due to the formation of a spot contact. In welding annular seams on the pipes the fusion depth increased with a higher welding current. The time interval between current pulses affects considerably the fusion depth. It is recommended to carry out welding of small diameter pipes with short annular seams at a low speed and extended time intervals between the pulses. Forcible rotation of the work piece is required for welding annular seams. The use of an independent drive for rotating the pipes proved satisfactory. A synchronized drive of the rotating part and the welding roller is not required. The linear speed of the roller should exceed that of the tube by 10 to 30%. Optimum values were established for the duration of the current pulse. The maximum fusion depth is attained at a duration of the pulse for two periods in welding  $9.4 \times 0.6$  mm pipes; three periods for

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A006/A002

Telescopic Connections of 1 18 9 (1Kh8N9T) Steel Pipes Produced by Roller Welding

22 x 1.25 pipes, and 9 to 11 periods for 25 x 2 mm pipes. The compressive force should provide for a reliable spot contact between the pipe and the internal mandrel. This is possible if the force applied exceeds the maximum force required for warping the pipe, prior to its contact with the internal mandrel. Greater compressive force and welding speed cause a decrease in the fusion depth. The maximum fusion depth was attained at a speed of 36.60 mm/min. Welded joints were subjected to hydraulic, pneumatic, vacuum and mechanical tests, which showed satisfactory results. It is concluded that overlap (telescopic) joints may be well performed on a mandrel when producing annular seams by roller welding. Best fusion and stability are obtained at a low welding speed and extended time intervals between the current pulses. There are 10 figures, 1 table and 1 Soviet reference.

Card 3/3

S/135/63/000/004/009/012  
A006/A101

AUTHOR: Rybakov, Yu. V., Engineer

TITLE: Corrosion resistance of welded joints in 1X18H9T (1Kh18N9T) steel pipes

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1963, 30 - 31

TEXT: The author investigates the causes of surface, external, and internal splashes in roller welding of circumferential seams on 1Kh18N9T steel pipes, 9.2 mm in diameter. He studied, moreover, the effect of splashes upon corrosion cracking of welded joints, operating under pressure at higher temperatures, in water containing chlorides and oxygen. It was found that splashes were caused by high current density during the initial half-period of the welding pulse and by the shape of the welding rolls. Spherical rolls acquiring during operation a somewhat changed shape, which then remains stable, are recommended. It was established that internal and external splashes in resistance roller welding of circumferential pipe seams may cause corrosion cracking of the metal under the effect of aggressive media, pressure and elevated temperature. Special equipment is required to weld small diameter pipes. There are 3 figures.

Card 1/1

RYBAKOV, Yu.V., inzh.

Heating of the contact adjacent zone in seam welding of girth joints  
on pipe. Svar,prilav, no.11:7-9 N 164. (MIRA 1831)

L 43989-56 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/HW/JG

ACC NR: AP6030269

(N)

SOURCE CODE: UR/0125/66/000/008/0030/0032

AUTHOR: Rybakov, Yu. V. (Moscow); Novokreshchenov, M. M. (Moscow)

ORG: none

TITLE: Effect of nitrogen on the mechanical properties of Kh17N4G14AB steel welds

SOURCE: Avtomaticheskaya svarka, no. 8, 1966, 30-32

TOPIC TAGS: stainless steel, chromium manganese stainless steel, nickel containing steel, nitrogen containing steel, stainless steel welding, stainless steel weld property, inert gas welding, inert gas nitrogen welding

ABSTRACT: Kh17N4G14AB, low-nickel stainless steel (0.05% carbon, 14.6% manganese, 17.3% chromium, 4.65% nickel, 1.05% niobium, 0.20% nitrogen) can be welded with any welding method. It was observed, however, that welds made with argon-shielded arc are susceptible to embrittlement when exposed to temperatures of 500–600°C for a long time, owing to a precipitation of a brittle phase at the grain boundaries. The notch toughness of the welds made with pure argon and aged for 1000 hr at 600°C dropped from the original 8.3–8.7 mkg/cm<sup>2</sup> to about 2.0 mkg/cm<sup>2</sup>, while the notch toughness of the base metal aged under the same conditions underwent little or no change. Addition of 5–6% nitrogen to argon greatly reduced the weld susceptibility to embrittlement, especially when Kh17N4G14AB electrode wire was used. The notch

Card 1/2

UDC: 621.791.856

ACC NR: AP6033030

(A)

SOURCE CODE: UR/0135/66/000/010/0024/0026

AUTHOR: Rybakov, Yu. V. (Candidate of technical sciences); Podvol'skiy, L. I.  
(Engineer)

ORG: none

TITLE: Properties of seam welded circular joints of thin-wall tubes from zirconium alloy

SOURCE: Svarochnoye proizvodstvo, no. 10, 1966, 24-26

TOPIC TAGS: zirconium alloy, niobium containing alloy, alloy tube, ~~welding~~,  
seam welding, ~~weld joint~~ mechanical property, ~~weld joint~~ corrosion resistance,  
metal tubeABSTRACT: Telescopic joints of thin-walled tubes (10.3 x 0.65 mm) made from zirconium alloy with 1% niobium, after expanding and surface preparation, were seam welded under "mild" or "severe" welding conditions and then tested for mechanical properties in the as-welded condition and after 500, 2000, and 3000 hr exposure to corrosion in ( $H_2O + Ar$ ) at 340°C at a pressure of 150 kg/cm<sup>2</sup>. Circular test specimens were cut from the base metal, from weld metal, and from joints. The base-metal tensile strength was about 40 and 19.0 kg/mm<sup>2</sup> at 20 and 350°C, respectively. The corresponding figures for the weld metal in the as-welded condition were 60 and 42.4 kg/mm<sup>2</sup>, respectively. The elongation and reduction of area of the base metal were noticeably higher at 350°C, while the weld-metal reduction of area increased by

UDC: 621.791.763.3:62-462:546.831

Card 1/2

ACC NR: AP6033030

only 1.5%, and the elongation even decreased slightly. All tested joints exhibited a satisfactory resistance against corrosion in a vapor-steam medium at 340C for 3000 hr. Welding conditions only slightly affected the microhardness of the metal of welded joints. The best surface preparation for welding the alloy consisted of degreasing, pickling for 40-60 sec in a solution of 45%HNO<sub>3</sub>, 5%HF and 50%H<sub>2</sub>O, rinsing in water, and boiling for 3-4 hr in distilled water. The best combination of strength and ductility were obtained in joints made under severe welding conditions (current pulses of 7000 A of 0.02 sec duration with an interval of 0.56 sec between pulses, electrode pressure 155 kg, welding speed 50 mm/min) and subsequently annealed in vacuum at 700C for 30 min. After corrosion testing for 3000 hr, such joints had a tensile strength of 50 kg/mm<sup>2</sup> and a reduction of area of about 37%. Orig. art. has: 5 figures and 1 table.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 002

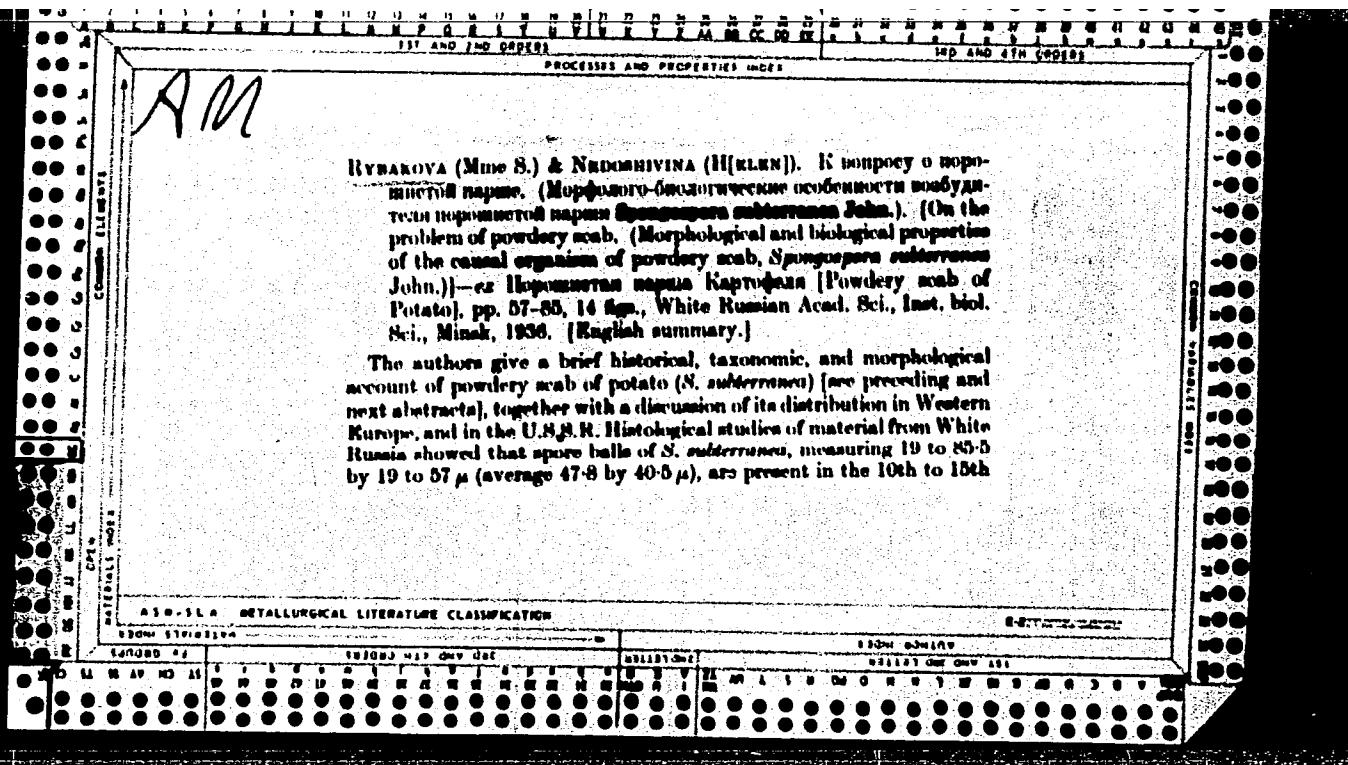
Card 2/2

RYBAKOV, Yu.Yu., inzh.

Making the unloading chamber in sinking a skip shaft at "Kapital'naya"  
No. 40 Mine. Shakht. stroi. 7 no.7:21-23 Jl '63. (MIRA 16:10)

1. Shakhtostroyupravleniye No.1 kombinata Pechorshakhtstroy.

RYBAKOV, Yu.Yu., inzh.; LEVCHUK, V.N., inzh.; GULYAYEV, A.N., inzh.  
Mechanizing the placing of reinforced concrete tubing in  
horizontal workings. Shakht. stroi. 9 no.9:22-24 S '65.  
(MIRA 18:9)  
1. Pechorskiy nauchno-issledovatel'skiy ugol'nyy institut.



row of cells of the scab lesions, and plasmodia in different stages of development occur in the underlying cells. The invaded tissue consisted of crushed cells with half-destroyed or softened walls, containing very little or no starch at all. Wound cork underlying scab lesions was not found in White Russian material, but was occasionally seen in material from Georgia and North Ossetia [Transcaucasia], and from the Leningrad province. A description is also given of an aberrant form of powdery scab present in the Moscow region, which differs from that discussed above in that the spore balls are, as a rule, outside the host tissue, they are various tints of brown instead of yellowish green, have a plicate or irregularly crumpled surface, and may be agglomerated into a common damp mass; in size they vary from 94 to 134 by 20 to 25  $\mu$ , and their structure is not cellular. The host tissue did not show the presence of plasmodia, and wound cork is usual under the lesions. *S. subterraneus* is generally considered to be restricted to Solanaceous plants, but N. A. Rojdestvenski is stated recently to have found specimens of *Ullucus tuberosus* of the Chenopodiaceae infected with it.

RYBAKVA, A.

Rybakova, A., and Nedoshivina, E. "Morphological and Biological Peculiarities of Spongospora subterranea John., the Agent of Powdery Scab of Potatoes," in Powdery Scab of Potato, a Collection of Articles, Publishing House of the Belorussian Academy of Science, Minsk, 1936, pp. 67-84. 464.1 M66

So: SIRA SI - 90-53, 15 Dec., 1953

RYBAKOVA, A.D.; VEL'KOV, A.M.

Some criteria for appraising structural noses and terraces in  
oil and gas prospecting. Geol. nefti i gaza 7 no.6:27-32 Je  
'63. (MIRA 16:9)

1. Nizhnevolzhskiy nauchno-issledovatel'skiy institut geologii  
i geofiziki.

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330008-2

RYBAKOVA, A.I., doktor meditsinskikh nauk, polkovnik meditsinskoy sluzhby

Military maxillofacial surgery. Voen.-med. zhur. no.5:93-94 My '60.  
(MIRA 13:7)

(FACE SURGERY)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001446330008-2"

BELASH, F.N., prof., doktor tekhn. nauk; PUGINA, O.V., starshiy nauchnyy sotrudnik; RYBAKOVA, A.N., inzh.

Flotation of pulp from the ore dressing plant of the 40th Anniversary of the October Revolution Mining Administration of the Nikopol' Manganese Trust. Sbor. nauch. trud. KGRI no.13:187-204 '62. (MIRA 16:8)

(Nikopol' region--Manganese ores)  
(Flotation)

LAZAREV, P.S., FEDOROV, A.I., prof.; BUKHTILOV, F.N., dotsent; PAVLOV, P.I.,  
dotsent; ZASLONOV, M.S.; PLEKHANOV, B.P.; Prinimali uchastiye:  
GRIBOVSKIY, G.P., veterinarnyy vrach; RYBAKOVA, A.V., veterinarnyy vrach

Some characteristics of the course of rabies in cattle. Veterinariia  
39 no.9:20-22 S '62. (MIRA 16:10)

1. Troitskiy veterinarnyy institut (for Lazarev, Fedorov, Bukhtilov,  
Pavlov). 2. Direktor Troitskoy mezhsovkhoznoy veterinarno-bakte-  
riologicheskoy laboratorii (for Zaslakov). 3. Glavnnyy veterinarnyy  
vrach Bredinskogo rayona, Chelyabinskoy oblasti (for Plekhanov).

RYBAKOVA, A.V., mladshiy nauchnyy sotrudnik

Experimental listeriosis of poultry. Veterinariia 41 no.3:46-47  
Mr '65. (MIRA 18:4)

1. Kurskaya oblastnaya nauchno-proizvodstvennaya veterinarnaya  
laboratoriya.

SPACKOVA, Alena, RNDr., kandidatka chemickych ved; RYBAKOVA, Bohumila

Spectral analysis of mineral waters. Geol Pruzkum 5 no.11:  
341-343 N '63.

1. Ustredni ustav geologicky, Praha.

RYBAKOVA, Bohumila; PLOSOVA, Marie

Quantitative spectrographic determination of nickel and cobalt.  
Geol pruzkum 6 no.8:245-246 Ag '64

1. Central Geologic Institute, Prague.

Rybakova, D. K.

12

ACCESSION NR: AT4042681

S/0000/63/000/000/0185/0188

AUTHOR: Zhukov-Verezhnikov, N. N.; Mayskiy, I. N.; Yazdovskiy, V. I.; Pekhov, A. P.; Rybakov, N. I.; Tribulev, G. P.; Saksonov, P. P.; Dobrov, N. N.; Antipov, V. V.; Kozlov, V. A.; Vysetskiy, V. G.; Mishenko, B. A.; Rybakova, D. K.; Parfenov, G. P.; Pantyukhova, V. V.; Yudin, Ye. V.; Aniskin, Ye. D.

TITLE: The evaluation of the biological effectiveness of space-flight factors with the aid of lysogenic bacteria

SOURCE: Konferentsiya po aviationskoy i kosmicheskoy meditsine, 1963. Aviationskaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 185-188

TOPIC TAGS: lysogenic bacteria, biological sensor, radiation detector, bacteriophage, phage, vibration, irradiation/Vostok III, Vostok IV

ABSTRACT: Lysogenic bacteria, *E. coli* K-12 ( $\lambda$ ), was carried on spaceships

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ACCESSION NR: AT4042681

Vostok III and Vostok IV as a biological sensor. The advantages of lysogenic bacteria as biological sensors stem not only from their extreme sensitivity to various types of radiation, but also from the fact that induced changes are directly proportional to the dose of irradiation. In addition, *E. coli* was subjected to the combined effects of radiation and vibration in ground experiments. Vibration was produced by means of a vibrator with frequencies of 35, 70, and 700 cps, an amplitude ranging from 0.4 to 0.005 mm with a load equal to 10 g, for periods of 15, 30, and 60 min.  $\text{Co}^{60}$  in doses of 100 r at a rate of 21 r per min served as a source of radiation. Lysogenic bacteria carried on spaceships Vostok III and Vostok IV revealed induction of genetic changes produced by space-flight factors which was indicated by a significant increase in the number of phage particles. The induced effect was more pronounced on Vostok III than on Vostok IV. Forty-eight hours after its return to earth, the bacteria carried by Vostok III had produced 4.6 times as many phage particles as controls which had remained on earth. Ground experiments with vibration indicate that the combined vibration and gamma irradiation, followed by a second exposure to vibration, double the biological effectiveness of gamma rays.

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ACCESSION NR: AT4042681

However, when the bacteria is subjected to only a single dose of vibration following irradiation, there is no increase in the number of phage particles as compared to samples which were exposed to irradiation alone. This fact indicates that under space flight conditions vibration sensitizes the lysogenic bacteria to the effect of ionizing radiation. This as yet hypothetical explanation should be substantiated by additional experiments.

ASSOCIATION: none

SUBMITTED: 27Sep63

ENCL: 00

SUB CODE: LS

NO REF SOV: 000

OTHER: 000

Card 3/3

BERKUTOV, A.N., professor; GOLIKOV, G.T.; RYBAKOVA, G.A.

Use of bicillin, a slow-acting penicillin preparation. Vest.khir. 77  
no.10:67-73 0 '56. (MIRA 9:12)

1. Iz kliniki voyenno-polevoy khirurgii (nach. - prof. A.N.Berkutov)  
Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova. Leningrad,  
Pirogovskaya naberezhnaya, 3. klinika voyenno-polevoy khirurgii  
VMOLA im. S.M.Kirova.

(PENICILLIN, rel. cpds.

benzathine penicillin G, ther. of wds.. local admin.)

(WOUNDS AND INJURIES, ther.

benzathine penicillin G, local admin.)

GEYRO, S.B., kand.med.sluzhby; AVISOV, P.B., mayor med.sluzhby; RYBAKOVA, G.A.

Effect of the nailing of long bones on changes in the peripheral blood and in the bone marrow. Voen.-med.zhur. no.7:58-63 Jl '58.

(MIRA 12:12)

(FRACTURES, surgery,  
nailing, eff. on hemopoiesis (Rus))  
(HEMOPOIESIS, physiology,  
eff. of nailing of fract. (Rus))

L 11210-66 EWT(1)/EWT(m)/T/EWP(z)/EWP(b)/EWP(t) IJP(c) JD/HW

ACC NR: AP6003617 SOURCE CODE: UR/0054/65/000/003/0123/0125

AUTHOR: Lukinykh, N. L.; Rybakova, G. A.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Magnetic susceptibility of solid solutions of nickel monoxide  
in magnesium oxide

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii,  
no. 3, 1965, 123-125

TOPIC TAGS: magnetic susceptibility, solid solution, nickel compound,  
magnesium oxide, magnetic moment, EPR spectrum

ABSTRACT: NiO/MgO solid solutions containing from 1.3 to 100 mol % NiO were prepared by evaporating mixtures of nickel nitrate and magnesium nitrate solutions and roasting the salts at 500-600°C and homogenizing in air for 100 hr at 1100°C. X-ray phase analysis showed the presence of a single phase with an NaCl-type structure. The mag-

Card 1/3

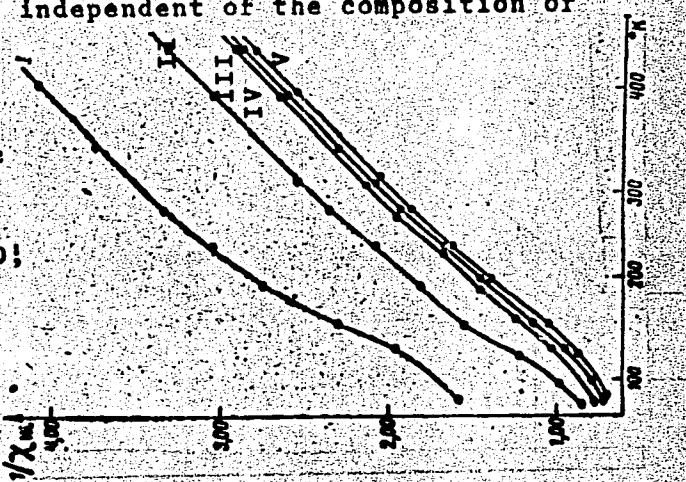
UDC: 621.317.412 : 546.74

L 14210-66

ACC NR: AP6003617

netic susceptibility of the samples was studied by Faraday's method in fields of 8100-3600 Oe in the 78-460°K range. The paramagnetic component of the susceptibility of nickel was calculated. The Curie-Weiss law obtains above 290°K; below this temperature, the  $1/\chi-T$  curve is S-shaped, and the temperature range in which the change in the shape of the curve occurs is independent of the composition of the solid solution (see fig.1).

Fig. 1. Temperature dependence of  $1/\chi_{Ni}$  ( $\chi_{Ni}$  is the paramagnetic component of the susceptibility of nickel per gram atom). I-- for composition  $Ni_{0.199}Mg_{0.801}O$ ; II--  $Ni_{0.052}Mg_{0.948}O$ ; III--  $Ni_{0.039}Mg_{0.961}O$ ; IV--  $Ni_{0.026}Mg_{0.974}O$ ; V--  $Ni_{0.013}Mg_{0.987}O$ .



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L 14210-66  
ACC NR: AP6003617

2

The EPR spectrum consists of a single band whose g factor remains unchanged (equal to 2.22) both above and below this temperature range. The effective magnetic moments calculated for the 290-460°K range (where the Curie-Weiss law applies) depend on the composition of the solid solutions, and substantially exceed the spin magnetic moments for 3d<sup>d</sup>. The x-ray analysis was performed by I. I. Kozhina, and the EPR spectra were studied by S. A. Akopyan, both of whom are thanked by the authors. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 12Apr65/ ORIG REF: 005/ OTH REF: 009

TS  
Card 3/3

LUKINIKH, N.L.; RYBAKOVA, G.A.

Mean heat capacity of solid solutions of NiO - MgO. Vest. LGU  
20 no.22:171-172 '65.  
(MIRA 18:12)

Rybakova, G.A.

BERKUTOV, A.N., professor; GOLIKOV, G.T.; RYBAKOVA, G.A.

Using bicillin in surgical practice and possibilities of its use in  
field medicine. Voen.-med.zhur.no.10:32-40 O '56. (MLRA 10:3)  
(PENICILLIN) (MEDICINE, MILITARY)

SOV/177-58-7-13/28

17(14)

AUTHOR: Geyro, S.B., Candidate of Medical Sciences, Avisov,  
P.B., Major of the Medical Corps, and Rybakova, G.A.

TITLE: Changes of the Peripheral Blood and the Medulla  
Ossium due to Osteosynthesis by Means of a Metal  
Pin in Fractures of Hollow Cylindrical Bones

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, pp 58-63  
(USSR)

ABSTRACT: The article discusses changes of the peripheral  
blood and of the medulla ossium in patients with  
various fractures of hollow cylindric bones and  
local changes of the medulla ossium prior to the  
introduction of the pin and after its extraction.  
A great many scientists including Raysh (1943),  
Slani (1941), R.L. Ginzburg (1952), Ya.G. Dubrov  
(1952), A.S. Ignat'yev (1956) who studied the red  
blood of patients after osteosynthesis, observed  
in several cases anemia of different degrees. Ya.

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SOV/177-58-7-13/28

Changes of the Peripheral Blood and the Medulla Ossium due to  
Osteosynthesis by Means of a Metal Pin in Fractures of Hollow  
Cylindrical Bones

G. Dubrov experimentally proved local changes of the medulla ossium after osteosynthesis of the hip bone. The author of this article sums up the results of his investigations in the following conclusions: 1) Concerning the blood system osteosynthesis is not contra-indicated. 2) Osteosynthesis of the hollow cylindrical bones by means of a metal pin takes no effect on hematopoiesis. The changes of the blood system following the operation are temporary or reversible. 3) After osteosynthesis, active hematopoiesis is to be observed in the punctate of the patient's sternum. 4) In long hollow bones without active and general hematopoiesis the steel pin is an insignificantly negative effect on the hematopoietic functions. Only in the zone directly adjacent to

Card 2/3

SOV/177-58-7-13/28

Changes of the Peripheral Blood and the Medulla Ossium due to  
Osteosynthesis by Means of a Metal Pin in Fractures of Hollow  
Cylindrical Bones

the pin's canal an excrescence of the strome of  
the connectivum and a restraint of the active paren-  
chyma take place. 5) It is to be supposed that  
changes of the blood system due to osteosynthesis  
result from the metal pin as stimulus of the re-  
ceptors of the medulla ossium and from the effect  
of the very injury and the surgical intervention.  
6) During 3 to 6 months following operation the  
compound of the peripheric blood in most of the  
patients was normal and only in a few cases was a  
tendency to moderate leucopenia with relative  
lymphocytosis and neutropenia observed. There are  
2 tables.

Card 3/3

MOROZOV, V.P.; RYBAKOVA, G.I. [Rybakova, H.I.]; NAUGOL'NIKOV, B.I.  
[Nauhol'nikov, B.I.]; KHLIEBNIKOVA, V.N.; [Khliebnikova, V.M.];  
MOKOZOVA, N.K. [Morozova, N.K.]; KOVAL'CHUK, D.S.

Some problems in the theory of vibrational spectra. Ukr.fiz.zhur.  
6 no.6:728-730 M.D '61. (MIRA 16:5)

1. Dnepropetrovskiy khimiko-tehnologicheskiy institut.  
(Molecular spectra)

RYBAKOVA, G.I.; KOVAL'CHEK, D.S.; MOROZOV, V.P.

Force constants and interaction coefficients of pyramidal  
hydrides. Opt.i spektr. 9 no.1:34-39 J1 '60.

(MIRA 13:7)

(Hydrides—Spectra)

RYBAKOVA, G.I.; NAUGOL'NIKOV, B.I.; MOROZOV, V.P.

Partial frequencies of pyramidal hydrides and deuterides with C<sub>3</sub>  
symmetry. Opt. i spektr. 9 no.2:166-169 Ag '60. (MIREA 13:8)  
(Hydrides)

RYBAKOVA, G.I.; MOROZOV, V.P.

Rules of averages for valence frequencies of pyramidal and  
tetrahedral hydrides and deuterides. Izv.vys.ucheb.zav., fiz.  
no.5:109-114 '61. (MIRA 14:10)

1. Dnepropetrovskiy khimiko-tehnologicheskiy institut imeni  
F.E.Dzerzhinskogo.  
(Molecular dynamics) (Hydrides)

AUTHOR:

Rybakova, G. I., Morozov, V. I.

SCOV/16-32-3-3/37

TITLE:

The Order Rule for Non-Planar Molecules of the Type  $XY_3$  and  
 $XY_4$  (Pravilo poryadka dlya neploskikh molekul tipa  $XY_3$  i  $XY_4$ )

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 8,  
pp. 1711-1714 (USSR)

ABSTRACT:

Two isotopic modifications  $XY_n$  and  $X'Y'_n$  are investigated proceeding from the secular equation of second order for the modification  $XY_n$  and the corresponding equation for  $X'Y'_n$ .

An equation is obtained by the derivations which specifies the order rule and which determines the limit frequencies of normal oscillations at an isotopic substitution. To be able to describe the order rule by molecular data the representation of the kinematic coefficients  $A$  must be carried out, which can also be done according to the method by M.A. Yel'yashevich (Refs 5 - 11). This way calculations of pyramidal molecules of the type  $XY_3$  are carried out for symmetric oscillations as well as for twice and three times

Card 1/2

The Order Rule for Non-Planar Molecules of the  
Type XY<sub>3</sub> and XY<sub>4</sub>.

307/76-32-B-3/37

Degenerated oscillations. It is proved that the order rule may be applied to the approximate determination of the oscillation frequency of the substituted modification if the frequencies of the initial modifications are known. From the equations derived may be seen that in molecules with a heavy central atom the order rule must supply sufficiently good approximations.

There are 11 references, all of which are Soviet.

ASSOCIATION: Glazovskiy pedagogicheskiy institut, Dnepropetrovskiy khimiko-tehnologicheskiy institut (Glazov Pedagogic Institute, Dnepropetrovsk Chemical and Technological Institute)

SUBMITTED: May 26, 1956

Card 2/2

RYBAKOVA, G. M.

Name: RYBAKOVA, G. M.

Dissertation: Material from an expedition studying microflora of the  
human nose and throat in an area where scleroma is preva-  
lent

Degree: Cand Med Sci

Affiliation: Smolensk State Med Inst

Publication  
Defense Date, Place: 1956, Smolensk

Source: Krizhnaya Letopis', No 2, 1957

RYBAKOVA, I.A. (Moskva)

Role of health education in controlling rheumatic fever in children.  
Sov.zdrav. 20 no.5:44-49 '61. (MIRA 14:5)

1. Iz TSentral'nogo instituta sanitarnogo prosveshcheniya.  
(HEALTH EDUCATION) (RHEUMATIC FEVER)

KLENIN, V. I.; RYBAKOVA, I. D.; GLIRMAN, S. A.

Particle shape and dimensions of colloidal solutions of  
cellulose esters. Koll. zhur. 24 no.6:696-701 N-D '62.  
(MIRA 16:1)

1. Laboratoriya fiziki i khimi polimerov Saratovskogo uni-  
versiteta.

(Cellulose esters) (Colloids)  
(Particle size determination)

S/069/62/024/006/006/009  
B101/B180

AUTHORS: Klenin, V. I., Rybakova, I. D., Glikman, S. A.

TITLE: Particle shape and dimensions in colloidal solutions of cellulose esters

PERIODICAL: Kolloidnyy zhurnal, v. 24, no. 6, 1962, 696-701

TEXT: The particle size of sols obtained by mixing solutions of nitrocellulose (NC) and acetyl cellulose (AC) with precipitants (water for the NC, and methanol for the AC) were measured by nephelometry using the method of R. Burberg (Z. Naturforsch., 11a, 807, 1956). In agreement with P. Debye's theoretical curve (J. Phys. u. Colloid. Chem., 51, 18, 1947) the AC particles were found to be spherical. In agreement with A. Dobry (J. Chem. Phys. 47, 402, 1950) the mean radius of the NC particles was close to 200 Å. The dependence of the NC particle size on the initial concentration of the NC solution as stated by S. A. Glikman, Ye. P. Korchagina (Nauchn. dokl. vyssh. shkoly, Khimiya i khim. tekhnologiya, 1, 147, 1959) was examined and found to be correct. The same applies to the

Card 1/2

Particle shape and dimensions in ...

S/069/62/024/006/006/009  
B101/B180

size of AC particles (non-fractionated specimen and 15 fractions), which increased with the molecular weight of AC. In low-molecular, highly esterified fractions, however, a deviation from this rule could be observed. Extrapolation of the function  $\bar{a}_T = f(c_{init})$ , where  $\bar{a}_T$  is the particle radius, showed that  $\bar{a}_T \sim 200 \text{ \AA}$ . There are 4 figures and 1 table.

ASSOCIATION: Saratovskiy universitet, Laboratoriya fiziki i khimii polimerov (Saratov University, Laboratory of Polymer Physics and Chemistry)

SUBMITTED: September 20, 1961

Card 2/2

SVERDLINSKIY, M.Yu.; RYBAKOVA, I.V.

Experimental use of K-17 glue. Der.prom.5 no.4:24 Ap '56.(MIRA 9:7)

1.Shumerlinskiy mebel'nyy kombinat.  
(Glue)

ZLAMALOVA, Jarmila, MUDr.; RYBAKOVA, Jarmila

Sanitation measures in the export ham processing plants. Prum  
potravin 14 no.3:150-154 Mr '63.

1. Vyzkumny ustav pro maso, Brno.

RYBAKOVA, K.

Operations and personnel of our establishment. Obshchestv. pit.  
no. 9:46-47 S '58. (MIRA 11:10)

1. Direktor restorana "Astoriya," Moskva.  
(Moscow--Restaurants, lunchrooms, etc.)

L Q3777-67 FSS-2/EHT(1)/EEG(k)-2/1

SOURCE CODE: UR/0293/66/004/004/0634/0640

ACC NR: AP6028343

ACC NR: AP6028343  
AUTHOR: Zhukov-Verezhnikov, N. N.; Mayskiy, I. N.; Delone, N. L.; Rybakov, N. I.  
Kozlov, V. A.; Davydov, B. I.; Antipov, V. V.; Saksonov, P. P.; Rybakova, K. D.  
Tribulev, G. P.

ORG: none

ORG: none  
TITLE: Biological investigations on the Voskhod-1 and Voskhod-2 spaceships  
DATE: 4 1966, 634-640

TITLE: Biological investigations  
SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 4, 1966, 634-640

**ABSTRACT:** Experiments were performed on the Voskhod-1 and Voskhod-2 spaceships to test the effects of spaceflight on lysogenic cultures of *E. coli* K-12 ( $\lambda$ ). The cultures were carried in 1.5-ml ampules on board spaceships and in Leonov's spacesuit pocket during his EVA. Some of the ampules contained the radioprotective drug  $\beta$ -mercaptopropylamine. Controls were kept at the cosmodrome and at the home laboratory. Results showed that on the basis of viability there was no difference between samples carried on Voskhod-1 and the controls. Experiments on Voskhod-2 resulted in a slightly higher viability on the part of experimental cultures as compared to controls. Phage production of experimental cultures carried on the two flights also did

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L 03777-57

ACC NR: AP6028343

not exceed phage production of controls. Thus, it was not possible to demonstrate the protective properties of  $\beta$ -mercaptopropylamine. An attempt was made to determine whether spaceflight sensitized lysogenic cultures of *E. coli* K-12 ( $\lambda$ ) to consequent exposure to small doses of x-rays. Results showed that phage production in space-flown samples was almost identical to that of the controls. In addition, air-dried seeds of pine and winter wheat (PPG-186) were carried on *Voskhod*-2 and in Leonov's pocket during his EVA for the purpose of determining the genetic effects of space-flight factors. Results did not reveal any substantial differences between the two spaceflight-exposed groups of seeds and the controls. It is assumed that the absence of the effects of spaceflight factors on lysogenic bacteria and seeds of higher plants in these two flights is due to the particular conditions under which these flights took place. Orig. art. has: 5 tables. [BM]

22 SUB CODE: 06/ SUBM DATE: 21Apr66/ ORIG REF: 013/ OTH REF: 002/ ATD PRESS: 5063

Card 2/2 1st

ZHUKOV-VEREZHNIKOV, N.N.; MAYSKIY, I.N.; PEKHOV, A.P.; RYBAKOV, N.I.;  
SAKSONOV, P.P.; MISHCHENKO, B.A.; KOZLOV, V.A.; RYBAKOVA, K.D.;  
ANISKIN, Ye.D.

Effect of radioprotective substances on the phage production of  
lysogenic bacteria induced by X-ray irradiation. Radiobiologia  
4 no.5:738-742 '64. (MIRA 18:4)

1. Institut eksperimental'noy biologii AMN SSSR, Moskva.

16634-63 EEO-2/ENG(j)/FSP(h)/FSS-2/ENG(r)/EVT(1)/PS(v)-3/EEC(k)-2/ENG(v)/  
FCC/ENG(d)/EEC-4/EEC(t)/ENG(a)/ENG(c)/ENG(h) Po-4/po-5/po-4/pac-4/pac-2/  
Pcb/Pi-4/pb-4 ESD(s1)/SSD/BSD/AFML/AS(mp)-2/AMD/AFMDC/AFETR/AFTC(b)/AFTC(a) 80  
TT/DD/GH/WS 79  
ACCESSION NR: AP4046443 S/0203/64/004/005/0738/0742 B  
4/C

AUTHOR: Zhukov-Verezhnikov, N. N.; Maykiy, I. N.; Pekhov, A. P.;  
Rybakov, N. I.; Saksnov, P. P.; Mishchenko, B. A.; Koslov, V. A.;  
Rybakova, K. D.; Aniskin, Ya. P.

TITLE: Effect of antiradiation drugs on phage production of lysogenic bacteria induced by x-irradiation

SOURCE: Radiobiologiya, v. 4, no. 3, 1964, 738-742

TOPIC TAGS: antiradiation drugs, radioprotectors, phage production, lysogenic bacteria, *E. coli* K-12(1), x-ray, irradiation, biological radiation sensor, space flight, 2-mercaptopropylamine, mercamine disulfide, urethane

ABSTRACT: Experiments have been performed to determine the effects of antiradiation drugs and urethane on biological objects capable of warning of radiogenetic damage. Lysogenic bacteria *E. coli* K-12(1) was selected because it proved to be a reliable and sensitive biological radiation sensor in space flight experiments by producing

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ACCESSION NR: AP4046443

phage particles in proportion to the dose of ionizing radiation. The mechanism of phage production by lysogenic bacteria constitutes a molecular-genetic reaction related to transformation-type genetic anomalies. The highest permissible concentration of each substance was used which did not have a bacteriostatic effect on *E. coli* K-12(λ). The concentrations for 2-mercaptopropylamine and mercamine disulfide were 0.05% and 0.8% for urethane. Irradiation of bacterial cultures was produced by an RUM-7 generator with a dose rate of 4050 r/min, a voltage of 50 kv, an amperage of 15 mamps, an irradiation distance of 8 cm, and using a 0.1-mm Al filter. It was found that 2-mercaptopropylamine and mercamine disulfide exert a substantial protective action on the prophage, but that they have no protective effect on mature phage particles. Urethane shows no radioprotective effect on lysogenic bacteria. The results obtained coincide with those obtained with other biological objects, and the ease of working with lysogenic bacteria indicate that *E. coli* K-12(λ) can serve as a useful subject for the fast primary identification of chemical compounds capable of protecting against genetic injury by radiation.

Orig. art. has: 1 figure and 3 tables.

Cord 2/3

L 16634-65  
ACCESSION NR: AP4046443

ASSOCIATION: Institut eksperimental'noy biologii AMN SSSR, Moscow  
(Institute of Experimental Biology, Academy of Medical Sciences of  
the SSSR)

SUBMITTED: 07Mar63

NO REV Sov: 014

ENCL: 00 SUB CODE: LS

OTHER: 014

Card 3/3

ZHUKOV-VEREZHNIKOV, N.N.; MAYSKIY, I.N.; PEKHOV, A.P.; TRIBULEV, G.P.;  
RYBAKOV, I.N.; RYBAKOVA, K.D.

Importance of microbiological objects in the study of  
pathological changes in genetic coding. Vest.AMN S.S.S.R.  
17 no.12:49-59 '62. (MIRA 16:4)

1. Institut eksperimental'noy biologii AMN SSSR.  
(MICROORGANISMS) (GENETICS)

ZHUKOV-VEREZHNICKOV, N.N.; YAZDOVSKIY, V.I.; MAYSKIY, I.N.; TRIBULEV, G.P.  
PEKHOV, A.P.; SAKSONOV, P.P.; RYBAKOV, N.I.; ANTIPOV, V.V.;  
ARTEM'YEV, N.S.; KOZLOV, V.A.; MISHCHENKO, B.A.; YUDIN, Ye.V.  
RYBAKOVA, K.D.; AMICKIN, Ye.D.

Microbiological and cytological studies in conquering space.  
(MIRA 17:6)  
Probl. kosm. biol. 3:184-192 '64.

RYBAKOVA, L.A.

Maternity schools, Med. sestra, Moskva no.10:19-24 Oct 1953. (CLML 25:5)

1. Scientific Associate of the Central Institute of Sanitary Education,  
Moscow.

RYBAKOVA, L.A., mladshiy nauchnyy sotrudnik

Methodology of health education for the prevention of rheumatic fever and its recurrence in children. Mat. dlja prep. san. prosv. v med. inst. no.5:53-62 '59. (MIRA 13:12)

1. TSentral'nyy institut sanitarnogo prosvetleniya.  
(HEALTH EDUCATION) (RHEUMATIC FEVER)

RYBAKOVA, L.A., mladshiy nauchnyy sotrudnik

Some methods of work in health education in the children's polyclinic.  
Mat. dlja prep. san. prosv. v med. inst. no. 5:63-67 '59.  
(MIRA 13:12)

1. Tsentral'nyy institut sanitarnogo просвещения.  
(HEALTH EDUCATION) (MOSCOW—CHILDREN—HOSPITALS)

RYBAKOVA, L.A. (Moskva)

"What parents should know about rheumatic fever in children" by  
T.A. Grishina. Reviewed by L.A. Rybakova. Med. sestra 19  
no..10:45-46 0 '60. (MIRA 13:10)  
(RHEUMATIC FEVER) (Grishina, T.A.)

RYBAKOVA, L.A., mladshiy nauchnyy sotrudnik

Role of the nurse in publicizing preventive measures against  
rheumatic fever and its recurrence in children. Med.sestra 19  
no.11:23-27 N '60. (MIRA 13:11)

1. Institut sanitarnogo prosveshcheniya.  
(RHEUMATIC FEVER)  
(NURSES AND NURSING)

RYBAKOVA, L.D.

AVREKH, V.V., KALUGINA, A.N., KHAVRIYEVICH, M.A., PROKOF'YEVA, A.V., RYBAKOVA, L.D.

"Comparative Quantitative Evaluation of Dry and Wet Dysentery Bacteriophage Preparations Under Laboratory Conditions," Zhur. Mikrob., Epidem. i Immynobiol., no. 10, pp. 7-13, 1946

State Control Inst. of Vaccines and Serums im. L.A. Tarasevich

DSI 61

AVREKH, V.V., PRISELKOV, M.M., KALUGINA, A.N., KHAVRIYEVICH, M.A., RYBAKOVA, L.D.

"The Nature of the Changes in Dysentery Bacteriophage During Storage," Zhur.  
Mikrob., Epidemiol. i Immunobiol., no. 1, p. 89, 1947

State Control Inst. of Vaccines and Serums im. L.A. Tarasevich

DSI 6}